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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,706	02/10/2004	Diego Andres Hoic	6318-00	3333
23909	7590	02/08/2007		
COLGATE-PALMOLIVE COMPANY			EXAMINER	
909 RIVER ROAD			CLAYTOR, DEIRDRE RENEE	
PISCATAWAY, NJ 08855			ART UNIT	PAPER NUMBER
			1617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/775,706

Applicant(s)

HOIC ET AL.

Examiner

Renee Claytor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 27-46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Applicant's arguments and amendments filed on 1/10/2007 have been fully considered. Applicant's amendment to claims 2 and 15 sufficiently overcome the objection to those particular claims. Applicant's explanation of titanium dioxide and titanium oxide referring to two different materials is found to be persuasive and sufficient to overcome the objection to claims 10-11 and 23-24.

Applicant's arguments over the 35 U.S.C. 103(a) rejection have been fully considered but they are not found persuasive. Applicant's state that the Yamagishi '898 reference contains an amount of pigment, which includes mica titanium, titanium oxide or powder of shell that is generally 0.1 to 10% weight percent. Applicants argue that Yamagishi '898 does not suggest the selection of a colorant and pearlescent particles in combination in the amounts claimed in independent claims 1 and 14. This argument is not found to be persuasive because Yamagishi clearly teaches that the amount of the pigments fall within the range 0.1 to 10% percent weight. The limitation of 1% by weight of a colorant and 1% by weight of pearlescent particles falls within this range.

Applicants further argue that Baig '920 teaches that coloring agents are present at 0.001 to 0.05% by weight of the total composition. This argument is not found persuasive because Baig '920 teaches that titanium dioxide, which according to Applicants is a type of colorant, comprises from about 0.25% to about 5% by weight of the composition (Col. 11, lines 43-47). Applicant's further argue that the combined teachings of Baig '920 and Yamagishi '898 teach that the level of coloring be kept to low levels and the combinations of 1% weight percent coloring agent with 1% weight

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percent pearlescent particles or 3% weight pearlescent particles, do not put the claimed compositions of independent claims 1 and 14 in possession of the public without the need for picking and choosing from among the variables. This argument is not found persuasive because it is obvious to vary and/or optimize the amount of colorant and pearlescent particles provided in the composition, according to the guidance provided by Baig '920 and Yamagishi '898, to provide a composition having the desired properties such as the desired percentages to provide maximum coating property. It is noted that "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Applicant's arguments to the 35 U.S.C. 103(a) rejection over Baig et al. in view of Yamagishi et al. and in further view of Choen et al. (U.S. Patent 6,729,878) is considered moot in view of the following rejection. In view of Applicant's response and claim amendments, the following modified rejections are being made.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baig et al. (U.S. Patent 6,685,920) in view of Yamagishi et al. (U.S. Patent 6,491,898).

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Baig et al. teach a composition to treat and protect the teeth from erosion by the use of a polymeric material that includes agents such as polyacrylates and polymethacrylates in an amount from about 1% to about 35% (meeting the limitation of claims 1, 3, 11, 14, 16, and 24; Col. 2, lines 42-60; Col. 4, lines 39-55; Col. 6, lines 28-33). Baig et al. further teaches titanium dioxide is added to the composition in an amount from about 0.25% to about 5% by weight of the composition (meeting the limitation of claims 10-12 and 23-25; Col. 11, lines 43-47). The percent by weight range of titanium dioxide further meets the limitation of 1% by weight of a colorant in claims 12 and 14. The oral composition may be in different forms, including liquids and dentures (meeting the limitation of claims 2 and 15; Col. 3, lines 27-47). Baig et al. further teach that FD&C Blue #1 can be used in the compositions (meeting the limitation of claims 5 and 18; Example II). The composition may further contain a soluble fluoride to prevent cavities (meeting the limitations of claims 13 and 26; Col. 7, lines 49-51).

Baig et al. do not teach a tooth whitening composition comprised of pearlescent particles.

Yamagishi et al. teach a tooth coating composition comprising a film-forming polymer (Col. 1, lines 32-36). The composition further contains pigments such as mica titanium, titanium oxide and fish scale in amounts ranging from 0.1-10% (meeting the limitation of claims 4, 6-12, 14, 17, and 19-25; Col. 4, lines 25-29 and 38-44). The amount of the pigments as stated in claims 1, 12 and 14 fall within the range of the 0.1-10% described by Yamagishi et al.

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Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teachings of Baig et al., which teaches a tooth coating composition comprised of polymeric material and colorants, with Yamagishi et al. which teach a tooth coating composition comprised of the pearlescent particles mica titanium and titanium oxide. One having ordinary skill in the art would have been motivated to combine the teachings of Baig et al. and Yamagishi et al. to formulate a tooth whitening composition that will have a strong affinity for the enamel surface to produce the desired surface protection effect (polymeric material), and will also impart aesthetic property and gloss to the teeth (pearlescent particles) appearance and character to the teeth (colorants).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

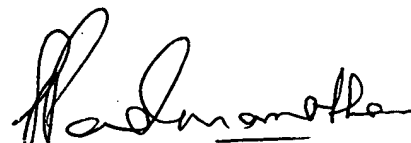
**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renee Claytor whose telephone number is 571-272-8394. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Renee Claytor



**SREENI PADMANABHAN  
SUPERVISORY PATENT EXAMINER**